Medalist® MD-50293 AP NAT (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

The Medalist MD-50200 Series is a high performance thermoplastic elastomer series, designed to be a sustainable alternative to flexible PVC for medical tubing and film. Medalist MD-50293 AP is a low density, high hardness, clear grade, available in Nat and color-matched, intended for use in medical and healthcare applications, with excellent processability and throughput in extruded tubing.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclavable • Chemical Resistant • Ethylene Oxide Sterilizable • Good Adhesion • Good Colorability	• Good Processability • Halogen Free • High Clarity • High Hardness • High Purity	• Kink Resistant • Low Density • Low Specific Gravity • No Animal Derived Components • Radiation (Gamma) Resistant
Uses	• Clear Sheet • Film	• Hose • Medical/Healthcare Applications	• Pharmaceuticals • Tubing
Agency Ratings	• ISO 10993-5	• ISO 13485	
RoHS Compliance	• RoHS Compliant		
Appearance	• Clear/Transparent	• Colors Available	
Forms	• Pellets		
Processing Method	• Cast Film	• Extrusion	• Injection Molding

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.890		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	10	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress - Flow (100% Strain)	1480	psi	ASTM D412
Tensile Stress - Flow (300% Strain)	1530	psi	ASTM D412
Tensile Strength - Flow (Break)	2200	psi	ASTM D412
Tensile Elongation - Flow (Break)	600	%	ASTM D412
Tear Strength	400	lbf/in	ASTM D624
Compression Set (73°F, 22 hr)	12	%	ASTM D395
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec	95		
Shore A, 5 sec	93		
Shore D	36		

Legal Statement

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Revision Date: 1/4/2022

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	260 to 300	°F
Middle Temperature	280 to 320	°F
Front Temperature	300 to 340	°F
Nozzle Temperature	340 to 380	°F
Processing (Melt) Temp	340 to 380	°F
Mold Temperature	70 to 100	°F
Injection Pressure	200 to 800	psi
Back Pressure	25.0 to 100	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in

Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	280 to 300	°F
Cylinder Zone 2 Temp.	300 to 320	°F
Cylinder Zone 3 Temp.	320 to 360	°F
Cylinder Zone 4 Temp.	340 to 380	°F
Cylinder Zone 5 Temp.	340 to 380	°F
Die Temperature	360 to 400	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm;
Screen Pack Recommendation:
60/200/200/60 to 60/200/400/400/200/60 mesh size.

Notes

[1] Typical properties: these are not to be construed as specifications.

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